	Application No.	Applicant(s)
Notice of Allowability	09/907,002	OHISHI, SYOUJI
	Examiner	Art Unit
	Emmanuel Bayard	2631
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.31	(OR REMAINS) CLOSED in or other appropriate commu IGHTS. This application is si	this application. If not included nication will be mailed in due course. THIS
1. $\boxtimes$ This communication is responsive to $\underline{7/17/01}$ .		
2. 🔀 The allowed claim(s) is/are <u>1-9</u> .		
3. 🔀 The drawings filed on 17 July 2001 are accepted by the E	xaminer.	
<ul> <li>4.  Acknowledgment is made of a claim for foreign priority u</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents hav</li> <li>2.  Certified copies of the priority documents hav</li> <li>3.  Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>	e been received. e been received in Application	n No
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDON! THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file MENT of this application.	a reply complying with the requirements
5. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which giv	nitted. Note the attached EXA es reason(s) why the oath or	MINER'S AMENDMENT or NOTICE OF declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") mu  (a) including changes required by the Notice of Draftsper  1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner Paper No./Mail Date  Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in	son's Patent Drawing Review - 's Amendment / Comment or I.84(c)) should be written on the	in the Office action of e drawings in the front (not the back) of R 1.121(d).
<ol> <li>DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT</li> </ol>	FOR THE DEPOSIT OF BIO	RIAL must be submitted. Note the LOGICAL MATERIAL.
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 7/17/01  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Su Paper No./N 08), 7. ☐ Examiner's A	ormal Patent Application (PTO-152) mmary (PTO-413), Mail Date Amendment/Comment Statement of Reasons for Allowance
		Emmanuel Bayard Primary Examiner Art Unit: 2631

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## **DETAILED ACTION**

This is in response to application filed on 7/17/01 in which claims 1-9 are pending. The application has been fully considered therefore this case is in condition for allowance.

## Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance: The prior arts of record fail to anticipate or render obvious the following recited features: a carrier recovering unit for performing carrier recovery by correcting finally a shift in the frequency of a signal on which a frequency correction by the use of the optimum frequency correction value and timing recovery have been bade as recited in all independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsui et al U.S. patent No 6,385,237 B1 teaches a non-invasive digital cable test system.

Ishikawa et al U.S. patent No 5,646,935 teaches a hierarchical quadrature frequency multiplex signal.

Maalej et al U.S. Patent no 6,545,532 B1 teaches a timing recovery circuit.

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Robbins et al U.S. Patent No 6,147,713 teaches a digital signal processor.

Strolle et al U.S. Patent No 6,005,640 teaches a multiple modulation format.

Scarpa et al U.S. Patent No 5,673,293 teaches a method an apparatus for demodulating QAM and VSB signals.

Shiue et al U.S. Patent No 6,590,872 B1 teaches a receiver with parallel correlator.

Harada et al U.S. Patent No 5,774,450 teaches a method of transmitting orthogonal frequency division multiplex signal.

Kishimoto et al U.S. Patent No 6,314,083 teaches a frequency control device.

Shiraishi et al U.S. patent No 6,717,993 B1 teaches a receiver.

Seki et al U.S. patent No 5,602,835 teaches an OFDM synchronization circuit.

Morris et al U.S. Patent No 6,032,033 teaches preamble based selection diversity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (3:PM-10:PM) Alternate Friday off.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard Primary Examiner Art Unit 2631

11/23/04

MANUEL BAYARD